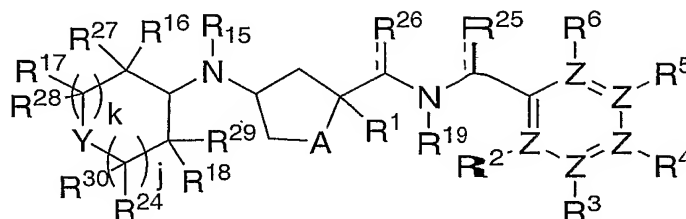


WHAT IS CLAIMED IS:

1. A compound of Formula I:



I

wherein:

- 10 A is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -N(SO₂R¹⁴)-, and -N(COR¹³)-;

Y is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -C(R²¹)(R²²)-, -N(SO₂R¹⁴)-, -N(COR¹³)-, -C(R²¹)(COR¹¹)-, -C(R²¹)(OCOR¹⁴)- and -CO-;

- 15 Z is C or N, where no more than three Z are N.

- R¹ is selected from: hydrogen, -C₁₋₆alkyl, -O-C₁₋₆alkyl, -S-C₁₋₆alkyl, -SO-C₁₋₆alkyl, -SO₂-C₁₋₆alkyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -(C₀₋₆alkyl)-(C₃₋₇cycloalkyl)-(C₀₋₆alkyl), -CN, -NR¹²R¹², -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -COR¹¹, -CONR¹²R¹², -NR¹²CONR¹²R¹², -O-CO-C₁₋₆alkyl, -O-CO₂-C₁₋₆alkyl, hydroxy, heterocycle and phenyl;

- where said alkyl and cycloalkyl are unsubstituted or substituted with 1-7 substituents independently selected from: halo, hydroxy, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CONR¹²R¹², -NR¹²CONR¹²R¹², -COR¹¹, -SO₂R¹⁴, -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -heterocycle, =O, -CN, phenyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO-C₁₋₆alkyl

unsubstituted or substituted with 1-6 fluoro, $-\text{SO}_2\text{-C}_{1-6}\text{alkyl}$ unsubstituted or substituted with 1-6 fluoro and $-\text{O-COR}^{13}$,

where said phenyl and heterocycle are unsubstituted or substituted with 1-3 substituents
 5 independently selected from: halo, hydroxy, $-\text{COR}^{11}$, $\text{C}_{1-3}\text{alkyl}$ unsubstituted substituted with 1-6 fluoro, $\text{C}_{1-3}\text{alkoxy}$ unsubstituted or substituted with 1-6 fluoro, NHCOH and $\text{NHCO}(\text{C}_{1-3}\text{alkyl})$;

R^2 is selected from: hydrogen, $\text{C}_{1-3}\text{alkyl}$ unsubstituted or substituted with 1-3 fluoro, $-\text{O-C}_{1-3}\text{alkyl}$
 10 unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R^2 is C, or R^2 is absent or is O when the Z bonded to R^2 is N;

R^3 is selected from: hydrogen, $\text{C}_{1-3}\text{alkyl}$ unsubstituted or substituted with 1-3 fluoro, $-\text{O-C}_{1-3}\text{alkyl}$
 15 unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R^3 is C, or R^3 is absent or is O when the Z bonded to R^3 is N;

R^4 is selected from: hydrogen, $\text{C}_{1-3}\text{alkyl}$ unsubstituted or substituted with 1-3 fluoro, $-\text{O-C}_{1-3}\text{alkyl}$
 unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R^4 is C, or R^4 is absent or is O when the Z bonded to R^4 is N;

R^5 is selected from: -heterocycle, $-\text{CN}$, $-\text{COR}^{11}$, $\text{C}_{1-6}\text{alkyl}$ unsubstituted or substituted with one or more
 substituents selected from 1-6 fluoro and hydroxyl, $-\text{O-C}_{1-6}\text{alkyl}$ unsubstituted or substituted with 1-6
 fluoro, $-\text{CO-C}_{1-6}\text{alkyl}$ unsubstituted or substituted with 1-6 fluoro, $-\text{S-C}_{1-6}\text{alkyl}$ unsubstituted or
 25 substituted with 1-6 fluoro, -pyridyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, $\text{C}_{1-4}\text{alkyl}$ and COR^{11} , fluoro, chloro, bromo, $-\text{C}_{4-6}\text{cycloalkyl}$, $-\text{O-C}_{4-6}\text{cycloalkyl}$, phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, $\text{C}_{1-4}\text{alkyl}$ and COR^{11} , $-\text{O-phenyl}$ unsubstituted or substituted with one or more
 substituents selected from halo, trifluoromethyl, $\text{C}_{1-4}\text{alkyl}$ and COR^{11} , $-\text{C}_{3-6}\text{cycloalkyl}$ unsubstituted or
 substituted with 1-6 fluoro and $-\text{O-C}_{3-6}\text{cycloalkyl}$ unsubstituted or substituted with 1-6 fluoro, when the Z
 30 bonded to R^5 is C, or R^5 is absent or is O when the Z bonded to R^5 is N;

R⁶ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁶ is C, or R⁶ is absent or is O when the Z bonded to R⁶ is N;

R¹¹ is independently selected from: hydroxy, hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where the alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹² is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

or, separate R¹² groups residing on the same or adjacent atoms together are C₁₋₇alkyl to form a ring, said C₁₋₇alkyl being unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹³ is selected from: hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl and trifluoromethyl;

R¹⁴ is selected from: hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹⁵ is selected from: hydrogen and C₁₋₆alkyl, which is unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, -CO₂H, -CO₂C₁₋₆alkyl, and -O-C₁₋₃alkyl;

R¹⁶ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, C₃₋₆ cycloalkyl, -O-C₃₋₆cycloalkyl, hydroxy, -COR¹¹ and -OCOR¹³;

5 or, R¹⁵ and R¹⁶ join to form a 5-7 membered ring where R¹⁵ and R¹⁶ together are C₂₋₄alkyl or C₀₋₂alkyl-O-C₁₋₃alkyl;

R¹⁷ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, COR¹¹, hydroxy, and -O-C₁₋₆alkyl unsubstituted or
10 substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxy, and -COR¹¹, or R¹⁷ is absent when R²⁸ is O joined to a ring carbon via a double bond;

or, R¹⁶ and R¹⁷ join to form a 3-6 membered ring, where R¹⁶ and R¹⁷ together are C₁₋₄alkyl or C₀₋₃alkyl-O-C₀₋₃alkyl;

15 or, R²⁴ and R¹⁷ join to form a 3-6 membered ring, where R²⁴ and R¹⁷ together are C₁₋₄alkyl or C₀₋₃alkyl-O-C₀₋₃alkyl;

R¹⁸ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, fluoro, -O-C₃₋₆cycloalkyl and -O-C₁₋₃alkyl unsubstituted or substituted with 1-6 fluoro;

20 or, R¹⁶ and R¹⁸ join to form a 5-6 membered ring where R¹⁶ and R¹⁸ together are C₂₋₃alkyl, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl, and C₁₋₃alkoxy;

25 or, R¹⁶ and R¹⁸ join to form a 6-8 membered ring, where R¹⁶ and R¹⁸ together are C₁₋₂alkyl-O-C₁₋₂alkyl, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl and C₁₋₃alkoxy;

or, R¹⁶ and R¹⁸ join to form a 6-7 membered ring, where R¹⁶ and R¹⁸ together are -O-C₁₋₂alkyl-O-, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl and C₁₋₃alkoxy;

- 5 R¹⁹ is selected from: hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;
or, R² and R¹⁹ join to form a heterocycle ring, where R² and R¹⁹ are selected from -CH₂(CR³¹R³¹)₁₋₃-, -CH₂-NR³²-, -NR²⁰-CR³¹R³¹-, -CH₂O-, -CH₂SO₂-, -CH₂SO-, -CH₂S- and -CR³¹R³¹-;
- 10 R²⁰ is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, C₃₋₆ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;
- 15 R²¹ and R²² are independently selected from: hydrogen, hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;
R²⁴ is selected from: hydrogen, COR¹¹, hydroxyl, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxy, and -COR¹¹, and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹;
- 20 R²⁵ and R²⁶ are independently selected from: =O, hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;
- 25 R²⁷, R²⁸, R²⁹, and R³⁰ are independently selected from: hydrogen, COR¹¹, hydroxy, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, and -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹;

30

R^{31} is independently selected from: hydrogen, C_{1-3} alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxy, COR^{13} , SO_2R^{14} , $SO_2NR^{12}R^{12}$, hydroxy, halo, $-NR^{12}R^{12}$, $-COR^{11}$, $-CONR^{12}R^{12}$, $-NR^{12}COR^{13}$, $-OCONR^{12}R^{12}$, $-NR^{12}CONR^{12}R^{12}$, -heterocycle, -CN, -
 5 $NR^{12}-SO_2-NR^{12}R^{12}$, $-NR^{12}-SO_2-R^{14}$, and $-SO_2-NR^{12}R^{12}$, or one R^{31} is =O when the other R^{31} is absent;

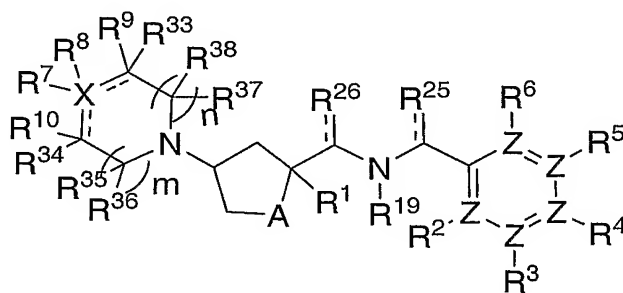
R^{32} is selected from: hydrogen, COR^{13} , SO_2R^{14} , $SO_2NR^{12}R^{12}$ and C_{1-3} alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

10 j and k are independently 0, 1 or 2;

a dashed line represents an optional single bond, whereby a dashed line used in conjunction with a solid line represents either a single or a double bond;

15 and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

2. A compound of Formula II:



II

wherein:

A is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -N(SO₂R¹⁴)-, and -N(COR¹³)-;

X is selected from O, N, S, SO₂ and C;

Z is C or N, where no more than three Z are N.

R¹ is selected from: hydrogen, -C₁₋₆alkyl, -O-C₁₋₆alkyl, -S-C₁₋₆alkyl, -SO-C₁₋₆alkyl, -SO₂-C₁₋₆alkyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -(C₀₋₆alkyl)-(C₃₋₇cycloalkyl)-(C₀₋₆alkyl), -CN, -NR¹²R¹², -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -COR¹¹, -CONR¹²R¹², -NR¹²CONR¹²R¹², -O-CO-C₁₋₆alkyl, -O-CO₂-C₁₋₆alkyl, hydroxy, heterocycle and phenyl;

where said alkyl and cycloalkyl are unsubstituted or substituted with 1-7 substituents independently selected from: halo, hydroxy, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CONR¹²R¹², -NR¹²CONR¹²R¹², -COR¹¹, -SO₂R¹⁴, -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -heterocycle, =O, -CN, phenyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO₂-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro and -O-COR¹³,

where said phenyl and heterocycle are unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, -COR¹¹, C₁₋₃alkyl unsubstituted substituted with 1-6 fluoro, C₁₋₃alkoxy unsubstituted or substituted with 1-6 fluoro, NHCOH and NHCO(C₁₋₃alkyl);

R² is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R² is C, or R² is absent or is O when the Z bonded to R² is N;

R³ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R³ is C, or R³ is absent or is O when the Z bonded to R³ is N;

R⁴ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁴ is C, or R⁴ is absent or is O when the Z bonded to R⁴ is N;

- 5 R⁵ is selected from: C₁₋₆alkyl unsubstituted or substituted with one or more substituents selected from 1-6 fluoro and hydroxyl, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -pyridyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, fluoro, chloro, bromo, -C₄₋₆cycloalkyl, -O-C₄₋₆cycloalkyl, phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, -O-phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, -C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro, -O-C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro, -heterocycle, -CN and -COR¹¹, when the Z bonded to R⁵ is C, or R⁵ is absent or is O when the Z bonded to R⁵ is N;

15

R⁶ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁶ is C, or R⁶ is absent or is O when the Z bonded to R⁶ is N;

- 20 R⁷ is selected from: hydrogen, (C₀₋₆alkyl)-phenyl, (C₀₋₆alkyl)-heterocycle, (C₀₋₆alkyl)-C₃₋₇cycloalkyl, (C₀₋₆alkyl)-COR¹¹, (C₀₋₆alkyl)-(alkene)-COR¹¹, (C₀₋₆alkyl)-SO₃H, (C₀₋₆alkyl)-W-C₀₋₄alkyl, (C₀₋₆alkyl)-CONR¹²-phenyl and (C₀₋₆alkyl)-CONR²³-V-COR¹¹, when X is C or N, or R⁷ is absent when X is O, S, or SO₂,

- 25 where W is selected from: a single bond, -O-, -S-, -SO-, -SO₂-, -CO-, -CO₂-, -CONR¹²- and -NR¹²-,

where V is selected from C₁₋₆alkyl and phenyl,

where said C₀₋₆alkyl is unsubstituted or substituted with 1-5 substituents independently selected from: halo, hydroxy, -C₀₋₆alkyl, -O-C₁₋₃alkyl, trifluoromethyl and -C₀₋₂alkyl-phenyl,

where said phenyl, heterocycle, cycloalkyl or C₀₋₄alkyl is unsubstituted or substituted with 1-5 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -C₀₋₃-COR¹¹, -CN, -NR¹²R¹², -CONR¹²R¹² and -C₀₋₃-heterocycle, or said phenyl or said heterocycle is fused to a second heterocycle, said second heterocycle being unsubstituted or substituted with 1-2 substituents independently selected from hydroxy, halo, -COR¹¹, and -C₁₋₃alkyl,

where said alkene is unsubstituted or substituted with 1-3 substituents independently selected from halo, trifluoromethyl, C₁₋₃alkyl, phenyl and heterocycle;

R⁸ is selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, -COR¹¹, -

CONR¹²R¹² and -CN, when X is C, or R⁸ is absent when X is O, S, SO₂ or N or when a double bond joins the carbons to which R⁷ and R¹⁰ are attached;

or, R⁷ and R⁸ join to form a ring selected from: 1H-indene, 2,3-dihydro-1H-indene, 2,3-dihydro-benzofuran, 1,3-dihydro-isobenzofuran, 2,3-dihydro-benzothiofuran, 1,3-dihydro-isobenzothiofuran, 6H-cyclopenta[d]isoxazol-3-ol, cyclopentane and cyclohexane, where said ring is unsubstituted or substituted with 1-5 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -C₀₋₃-COR¹¹, -CN, -NR¹²R¹², -CONR¹²R¹² and -C₀₋₃-heterocycle;

R⁹ and R¹⁰ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, =O, and halo;

or, R⁷ and R⁹, or R⁸ and R¹⁰, join to form a ring which is phenyl or heterocycle, wherein said ring is unsubstituted or substituted with 1-7 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -COR¹¹, -CN, -NR¹²R¹² and -CONR¹²R¹²;

R¹¹ is independently selected from: hydroxy, hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where the alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

5

R¹² is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

10 or, separate R¹² groups residing on the same or adjacent atoms together are C₁₋₇alkyl to form a ring, said C₁₋₇alkyl being unsubstituted or substituted with with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

15 R¹³ is selected from: hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl and trifluoromethyl;

20 R¹⁴ is selected from: hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

25 R¹⁹ is selected from: hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

or, R² and R¹⁹ join to form a heterocycle ring, where R² and R¹⁹ are selected from -CH₂(CR³¹R³¹)₁₋₃-, -CH₂-NR³²-, -NR²⁰-CR³¹R³¹-, -CH₂O-, -CH₂SO₂-, -CH₂SO-, -CH₂S- and -CR³¹R³¹-;

30 R²⁰ is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, C₃₋₆ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-6 substituents where the

substituents are independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆alkyl, and trifluoromethyl;

R²³ is hydrogen or C₁₋₄alkyl, or where R²³ is joined via C₁₋₅alkyl to one of the carbons of V to form a ring;

5

R²⁵ and R²⁶ are independently selected from: =O, hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

R³¹ is independently selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxy, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹², hydroxy, halo, -NR¹²R¹², -COR¹¹, -CONR¹²R¹², -NR¹²COR¹³, -OCONR¹²R¹², -NR¹²CONR¹²R¹², -heterocycle, -CN, -NR¹²-SO₂-NR¹²R¹², -NR¹²-SO₂-R¹⁴, -SO₂-NR¹²R¹², and =O ;

10

R³² is selected from: hydrogen, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹² and C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

15

R³³ and R³⁴ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, trifluoromethyl and halo, or R³³ and R³⁴ are absent when the carbon to which they are bound unsaturated;

20

R³⁵ and R³⁸ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, trifluoromethyl and halo;

R³⁶ and R³⁷ are independently selected from: hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, halo and hydrogen, where said alkyl is unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

25

or, R³⁶ and R³⁷ join to form a ring, where R³⁶ and R³⁷ together are selected from -C₁₋₄alkyl-, -C₀₋₂alkyl-O-C₁₋₃alkyl- and -C₁₋₃alkyl-O-C₀₋₂alkyl-; where said alkyls are unsubstituted or substituted with 1-2 substituents selected from of oxy, fluoro, hydroxy, methoxy, methyl or trifluoromethyl;

30

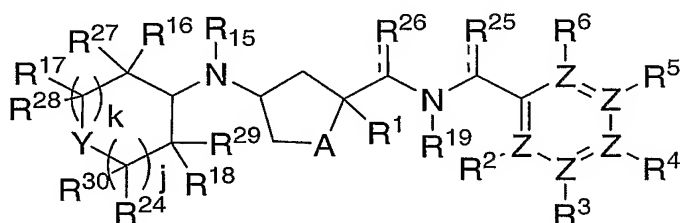
m is 0, 1 or 2;

n is 1 or 2;

- 5 a dashed line represents an optional single bond, whereby a dashed line used in conjunction with a solid line represents either a single or a double bond;

and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

- 10 3. A compound of Formula I:



I

- 15 wherein:

A is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -N(SO₂R¹⁴)-, and -N(COR¹³)-;

- Y is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -C(R²¹)(R²²)-, -N(SO₂R¹⁴)-, -N(COR¹³)-, -
20 C(R²¹)(COR¹¹)-, -C(R²¹)(OCOR¹⁴)- and -CO-;

Z is C or N, where no more than three Z are N.

- R¹ is selected from: hydrogen, -C₁₋₆alkyl, -O-C₁₋₆alkyl, -S-C₁₋₆alkyl, -SO-C₁₋₆alkyl, -SO₂-C₁₋₆alkyl, -
25 -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -(C₀₋₆alkyl)-(C₃₋₇cycloalkyl)-(C₀₋₆alkyl), -CN, -NR¹²R¹², -
NR¹²COR¹³, -NR¹²SO₂R¹⁴, -COR¹¹, -CONR¹²R¹², -NR¹²CONR¹²R¹², -O-CO-C₁₋₆alkyl, -O-CO₂-C₁₋₆alkyl, hydroxy, heterocycle and phenyl;

where said alkyl and cycloalkyl are unsubstituted or substituted with 1-7 substituents independently selected from: halo, hydroxy, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CONR¹²R¹², -NR¹²CONR¹²R¹², -COR¹¹, -SO₂R¹⁴, -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -heterocycle, =O, -CN, phenyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO₂-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro and -O-COR¹³,

where said phenyl and heterocycle are unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, -COR¹¹, C₁₋₃alkyl unsubstituted or substituted with 1-6 fluoro, and C₁₋₃alkoxy unsubstituted or substituted with 1-6 fluoro;

R² is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R² is C, or R² is absent or is O when the Z bonded to R² is N;

R³ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R³ is C, or R³ is absent or is O when the Z bonded to R³ is N;

R⁴ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁴ is C, or R⁴ is absent or is O when the Z bonded to R⁴ is N;

R⁵ is selected from: -heterocycle, -CN, -COR¹¹, C₁₋₆alkyl unsubstituted or substituted with one or more substituents selected from 1-6 fluoro and hydroxyl, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -pyridyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, fluoro, chloro, bromo, -C₄₋₆cycloalkyl, -O-C₄₋₆cycloalkyl, phenyl unsubstituted or substituted with one or more substituents selected from halo,

trifluoromethyl, C₁₋₄alkyl and COR¹¹, -O-phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, -C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro and -O-C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro, when the Z bonded to R⁵ is C, or R⁵ is absent or is O when the Z bonded to R⁵ is N;

5

R⁶ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁶ is C, or R⁶ is absent or is O when the Z bonded to R⁶ is N;

10 R¹¹ is independently selected from: hydroxy, hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where the alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

15 R¹² is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

or, separate R¹² groups residing on the same or adjacent atoms together are C₁₋₇alkyl to form a ring, said
20 C₁₋₇alkyl being unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹³ is selected from: hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents
25 independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl and trifluoromethyl;

R¹⁴ is selected from: hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents
30 independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹⁵ is selected from: hydrogen and C₁₋₆alkyl, which is unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, -CO₂H, -CO₂C₁₋₆alkyl, and -O-C₁₋₃alkyl;

5 R¹⁶ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, C₃₋₆ cycloalkyl, -O-C₃₋₆cycloalkyl, hydroxy, -COR¹¹ and -OCOR¹³;

10 or, R¹⁵ and R¹⁶ join to form a 5-7 membered ring where R¹⁵ and R¹⁶ together are C₂₋₄alkyl or C₀₋₂alkyl-O-C₁₋₃alkyl;

15 R¹⁷ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, COR¹¹, hydroxy, and -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxy, and -COR¹¹, or R¹⁷ is absent when R²⁸ is O joined to a ring carbon via a double bond;

or, R¹⁶ and R¹⁷ join to form a 3-6 membered ring, where R¹⁶ and R¹⁷ together are C₁₋₄alkyl or C₀₋₃alkyl-O-C₀₋₃alkyl;

20 or, R²⁴ and R¹⁷ join to form a 3-6 membered ring, where R²⁴ and R¹⁷ together are C₁₋₄alkyl or C₀₋₃alkyl-O-C₀₋₃alkyl;

25 R¹⁸ is selected from: hydrogen, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, fluoro, -O-C₃₋₆cycloalkyl and -O-C₁₋₃alkyl unsubstituted or substituted with 1-6 fluoro;

or, R¹⁶ and R¹⁸ join to form a 5-6 membered ring where R¹⁶ and R¹⁸ together are C₂₋₃alkyl, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl, and C₁₋₃alkoxy;

or, R¹⁶ and R¹⁸ join to form a 6-8 membered ring, where R¹⁶ and R¹⁸ together are C₁₋₂alkyl-O-C₁₋₂alkyl, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl and C₁₋₃alkoxy;

5 or, R¹⁶ and R¹⁸ join to form a 6-7 membered ring, where R¹⁶ and R¹⁸ together are -O-C₁₋₂alkyl-O-, where said alkyl is unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxy, -COR¹¹, C₁₋₃alkyl and C₁₋₃alkoxy;

R¹⁹ is selected from: hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents
10 selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

or, R² and R¹⁹ join to form a heterocycle ring, where R² and R¹⁹ are selected from -CH₂(CR³¹R³¹)₁₋₃-, -CH₂-NR³²-, -NR²⁰-CR³¹R³¹-, -CH₂O-, -CH₂SO₂-, -CH₂SO-, -CH₂S- and -CR³¹R³¹-;

15 R²⁰ is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, C₃₋₆ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

20 R²¹ and R²² are independently selected from: hydrogen, hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R²⁴ is selected from: hydrogen, COR¹¹, hydroxyl, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6
25 substituents selected from fluoro, C₁₋₃alkoxy, hydroxy, and -COR¹¹, and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹;

R²⁵ and R²⁶ are independently selected from: =O, hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

30

R²⁷, R²⁸, R²⁹, and R³⁰ are independently selected from: hydrogen, COR¹¹, hydroxy, C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹, and -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from fluoro, C₁₋₃alkoxy, hydroxyl and -COR¹¹;

5

R³¹ is independently selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxy, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹², hydroxy, halo, -NR¹²R¹², -COR¹¹, -CONR¹²R¹², -NR¹²COR¹³, -OCONR¹²R¹², -NR¹²CONR¹²R¹², -heterocycle, -CN, -NR¹²-SO₂-NR¹²R¹², -NR¹²-SO₂-R¹⁴, and -SO₂-NR¹²R¹², or one R³¹ is =O when the other R³¹ is absent;

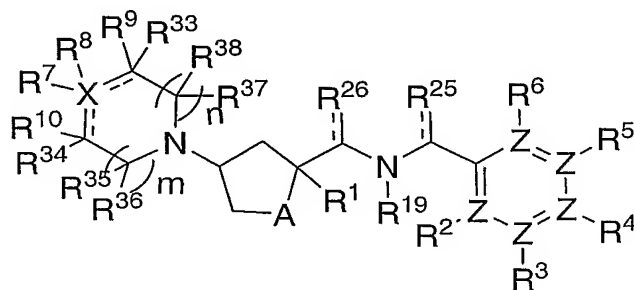
R³² is selected from: hydrogen, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹² and C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

15 j and k are independently 0, 1 or 2;

a dashed line represents an optional single bond, whereby a dashed line used in conjunction with a solid line represents either a single or a double bond;

20 and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

4. A compound of Formula II:



25

II

wherein:

A is selected from: -O-, -N(R²⁰)-, -S-, -SO-, -SO₂-, -N(SO₂R¹⁴)-, and -N(COR¹³)-

5 X is selected from O, N, S, SO₂ and C;

Z is C or N, where no more than three Z are N;

10 R¹ is selected from: hydrogen, -C₁₋₆alkyl, -O-C₁₋₆alkyl, -S-C₁₋₆alkyl, -SO-C₁₋₆alkyl, -SO₂-C₁₋₆alkyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -(C₀₋₆alkyl)-(C₃₋₇cycloalkyl)-(C₀₋₆alkyl), -CN, -NR¹²R¹², -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -COR¹¹, -CONR¹²R¹², -NR¹²CONR¹²R¹², -O-CO-C₁₋₆alkyl, -O-CO₂-C₁₋₆alkyl, hydroxy, heterocycle and phenyl;

15 where said alkyl and cycloalkyl are unsubstituted or substituted with 1-7 substituents independently selected from: halo, hydroxy, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CONR¹²R¹², -NR¹²CONR¹²R¹², -COR¹¹, -SO₂R¹⁴, -NR¹²COR¹³, -NR¹²SO₂R¹⁴, -heterocycle, =O, -CN, phenyl, -SO₂NR¹²R¹², -NR¹²-SO₂-NR¹²R¹², -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -SO₂-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro and -O-COR¹³,

20

where said phenyl and heterocycle are unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, -COR¹¹, C₁₋₃alkyl unsubstituted substituted with 1-6 fluoro, and C₁₋₃alkoxy unsubstituted or substituted with 1-6 fluoro;

25 R² is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R² is C, or R² is absent or is O when the Z bonded to R² is N;

R³ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R³ is C, or R³ is absent or is O when the Z bonded to R³ is N;

- 5 R⁴ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁴ is C, or R⁴ is absent or is O when the Z bonded to R⁴ is N;

- 10 R⁵ is selected from: C₁₋₆alkyl unsubstituted or substituted with one or more substituents selected from 1-6 fluoro and hydroxyl, -O-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -CO-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -S-C₁₋₆alkyl unsubstituted or substituted with 1-6 fluoro, -pyridyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, fluoro, chloro, bromo, -C₄₋₆cycloalkyl, -O-C₄₋₆cycloalkyl, phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, -O-phenyl unsubstituted or substituted with one or more substituents selected from halo, trifluoromethyl, C₁₋₄alkyl and COR¹¹, -C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro, -O-C₃₋₆cycloalkyl unsubstituted or substituted with 1-6 fluoro, -heterocycle, -CN and -COR¹¹, when the Z bonded to R⁵ is C, or R⁵ is absent or is O when the Z bonded to R⁵ is N;

- 20 R⁶ is selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, -O-C₁₋₃alkyl unsubstituted or substituted with 1-3 fluoro, hydroxy, chloro, fluoro, bromo, phenyl and heterocycle, when the Z bonded to R⁶ is C, or R⁶ is absent or is O when the Z bonded to R⁶ is N;

- 25 R⁷ is selected from: hydrogen, (C₀₋₆alkyl)-phenyl, (C₀₋₆alkyl)-heterocycle, (C₀₋₆alkyl)-C₃₋₇cycloalkyl, (C₀₋₆alkyl)-COR¹¹, (C₀₋₆alkyl)-(alkene)-COR¹¹, (C₀₋₆alkyl)-SO₃H, (C₀₋₆alkyl)-W-C₀₋₄alkyl, (C₀₋₆alkyl)-CONR¹²-phenyl and (C₀₋₆alkyl)-CONR²³-V-COR¹¹, when X is C or N, or R⁷ is absent when X is O, S, or SO₂,

- 30 where W is selected from: a single bond, -O-, -S-, -SO-, -SO₂-, -CO-, -CO₂-, -CONR¹²- and -NR¹²-,

where V is selected from C₁₋₆alkyl and phenyl,

where said C₀₋₆alkyl is unsubstituted or substituted with 1-5 substituents independently selected from: halo, hydroxy, -C₀₋₆alkyl, -O-C₁₋₃alkyl, trifluoromethyl and -C₀₋₂alkyl-phenyl,

where said phenyl, heterocycle, cycloalkyl or C₀₋₄alkyl is unsubstituted or substituted with 1-5 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -C₀₋₃-COR¹¹, -CN, -NR¹²R¹², -CONR¹²R¹² and -C₀₋₃-heterocycle, or said phenyl or said heterocycle is fused to a second heterocycle, said second heterocycle being unsubstituted or substituted with 1-2 substituents independently selected from hydroxy, halo, -COR¹¹, and -C₁₋₃alkyl,

where said alkene is unsubstituted or substituted with 1-3 substituents independently selected from halo, trifluoromethyl, C₁₋₃alkyl, phenyl and heterocycle;

R⁸ is selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, -COR¹¹, -CONR¹²R¹² and -CN, when X is C, or R⁸ is absent when X is O, S, SO₂ or N or when a double bond joins the carbons to which R⁷ and R¹⁰ are attached;

or, R⁷ and R⁸ join to form a ring selected from: 1H-indene, 2,3-dihydro-1H-indene, 2,3-dihydro-benzofuran, 1,3-dihydro-isobenzofuran, 2,3-dihydro-benzothiofuran, 1,3-dihydro-isobenzothiofuran, 6H-cyclopenta[d]isoxazol-3-ol, cyclopentane and cyclohexane, where said ring is unsubstituted or substituted with 1-5 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -C₀₋₃-COR¹¹, -CN, -NR¹²R¹², -CONR¹²R¹² and -C₀₋₃-heterocycle;

R⁹ and R¹⁰ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, =O, and halo;

or, R⁷ and R⁹, or R⁸ and R¹⁰, join to form a ring which is phenyl or heterocycle,

wherein said ring is unsubstituted or substituted with 1-7 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -COR¹¹, -CN, -NR¹²R¹² and -CONR¹²R¹²;

R¹¹ is independently selected from: hydroxy, hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where the alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹² is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

or, separate R¹² groups residing on the same or adjacent atoms together are C₁₋₇alkyl to form a ring, said C₁₋₇alkyl being unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹³ is selected from: hydrogen, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl and trifluoromethyl;

R¹⁴ is selected from: hydroxy, C₁₋₆ alkyl, -O-C₁₋₆alkyl, benzyl, phenyl and C₃₋₆ cycloalkyl, where said alkyl, phenyl, benzyl, and cycloalkyl groups are unsubstituted or substituted with 1-6 substituents independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R¹⁹ is selected from: hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

or, R² and R¹⁹ join to form a heterocycle ring, where R² and R¹⁹ are selected from -CH₂(CR³¹R³¹)₁₋₃-, -CH₂-NR³²-, -NR²⁰-CR³¹R³¹-, -CH₂O-, -CH₂SO₂-, -CH₂SO-, -CH₂S- and -CR³¹R³¹-;

R²⁰ is selected from: hydrogen, C₁₋₆ alkyl, benzyl, phenyl, C₃₋₆ cycloalkyl where the alkyl, phenyl, benzyl, and cycloalkyl groups can be unsubstituted or substituted with 1-6 substituents where the substituents are independently selected from: halo, hydroxy, C₁₋₃alkyl, C₁₋₃alkoxy, -CO₂H, -CO₂-C₁₋₆ alkyl, and trifluoromethyl;

R²³ is hydrogen or C₁₋₄alkyl, or where R²³ is joined via C₁₋₅alkyl to one of the carbons of V to form a ring;

R²⁵ and R²⁶ are independently selected from: =O, hydrogen, phenyl and C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents selected from: -COR¹¹, hydroxy, fluoro, chloro and -O-C₁₋₃alkyl;

R³¹ is independently selected from: hydrogen, C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxy, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹², hydroxy, halo, -NR¹²R¹², -COR¹¹, -CONR¹²R¹², -NR¹²COR¹³, -OCONR¹²R¹², -NR¹²CONR¹²R¹², -heterocycle, -CN, -NR¹²-SO₂-NR¹²R¹², -NR¹²-SO₂-R¹⁴, -SO₂-NR¹²R¹², and =O ;

R³² is selected from: hydrogen, COR¹³, SO₂R¹⁴, SO₂NR¹²R¹² and C₁₋₃alkyl unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

R³³ and R³⁴ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, trifluoromethyl and halo, or R³³ and R³⁴ are absent when the carbon to which they are bound unsaturated;

R³⁵ and R³⁸ are independently selected from: hydrogen, hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, trifluoromethyl and halo;

R³⁶ and R³⁷ are independently selected from: hydroxy, C₁₋₆alkyl, C₁₋₆alkyl-COR¹¹, C₁₋₆alkyl-hydroxy, -O-C₁₋₃alkyl, halo and hydrogen, where said alkyl is unsubstituted or substituted with 1-6 substituents independently selected from fluoro and hydroxyl;

or, R^{36} and R^{37} join to form a ring, where R^{36} and R^{37} together are selected from $-C_{1-4}alkyl-$, $-C_{0-2}alkyl-O-C_{1-3}alkyl-$ and $-C_{1-3}alkyl-O-C_{0-2}alkyl-$; where said alkyls are unsubstituted or substituted with 1-2 substituents selected from of oxy, fluoro, hydroxy, methoxy, methyl or trifluoromethyl;

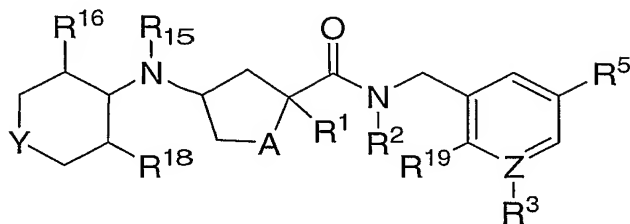
5 m is 0, 1 or 2;

n is 1 or 2;

10 a dashed line represents an optional single bond, whereby a dashed line used in conjunction with a solid line represents either a single or a double bond;

and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

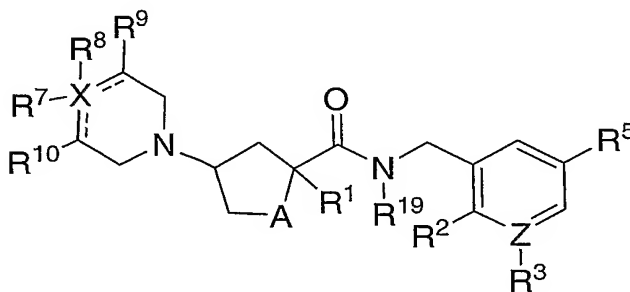
5. The compound of claim 1 having the Formula Ia:



Ia

5 and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

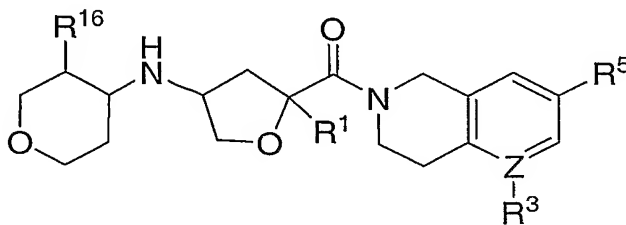
6. The compound of claim 2 having the Formula IIa:



IIa

and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

7. The compound of claim 1 having the Formula Ib:



Ib

20 and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

8. The compound of claim 1, wherein A is N or O.

9. The compound of claim 2, wherein A is N or O.

10. The compound of claim 2, wherein X is N, O or C.

11. The compound of claim 1, wherein Y is O or C.

12. The compound of claim 1, wherein Z is N or C.

13. The compound of claim 2, wherein Z is N or C.

14. The compound of claim 1, wherein R¹ is selected from: -C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents independently selected from halo, hydroxy, -O-C₁₋₃alkyl and trifluoromethyl, -C₀₋₆alkyl-O-C₁₋₆alkyl- unsubstituted or substituted with 1-6 substituents independently selected from halo and trifluoromethyl, -C₀₋₆alkyl-S-C₁₋₆alkyl- unsubstituted or substituted with 1-6 substituents independently selected from halo and trifluoromethyl, -(C₃₋₅cycloalkyl)-(C₀₋₆alkyl) unsubstituted or substituted with 1-7 substituents independently selected from halo, hydroxy, -O-C₁₋₃alkyl and trifluoromethyl, phenyl unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxyl, C₁₋₃alkyl, C₁₋₃alkoxy and trifluoromethyl, and heterocycle unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxyl, C₁₋₃alkyl, C₁₋₃alkoxy and trifluoromethyl.

15. The compound of claim 2, wherein R¹ is selected from: -C₁₋₆alkyl unsubstituted or substituted with 1-6 substituents independently selected from halo, hydroxy, -O-C₁₋₃alkyl and trifluoromethyl, -C₀₋₆alkyl-O-C₁₋₆alkyl- unsubstituted or substituted with 1-6 substituents independently selected from halo and trifluoromethyl, -C₀₋₆alkyl-S-C₁₋₆alkyl- unsubstituted or substituted with 1-6 substituents independently selected from halo and trifluoromethyl, -(C₃₋₅cycloalkyl)-(C₀₋₆alkyl) unsubstituted or substituted with 1-7 substituents independently selected from halo, hydroxy, -O-C₁₋₃alkyl and trifluoromethyl, phenyl unsubstituted or substituted with 1-3 substituents independently

selected from halo, hydroxyl, C₁₋₃alkyl, C₁₋₃alkoxy and trifluoromethyl, and heterocycle unsubstituted or substituted with 1-3 substituents independently selected from halo, hydroxyl, C₁₋₃alkyl, C₁₋₃alkoxy and trifluoromethyl.

- 5 16. The compound of claim 1, wherein R² is H, or wherein R² and R¹⁹ together are C₂-alkyl.
17. The compound of claim 2, wherein R² is H, or wherein R² and R¹⁹ together are C₂-alkyl.
- 10 18. The compound of claim 1, wherein when Z is C, R³ is selected from: hydrogen, trifluoromethyl, trifluoromethoxy, hydroxy, chloro, fluoro, bromo and phenyl.
19. The compound of claim 2, wherein when Z is C, R³ is selected from: hydrogen, trifluoromethyl, trifluoromethoxy, hydroxy, chloro, fluoro, bromo and phenyl.
- 15 20. The compound of claim 1, wherein when Z is N, R³ is O or is absent.
21. The compound of claim 2, wherein when Z is N, R³ is O or is absent.
- 20 22. The compound of claim 1, wherein when R⁵ is selected from: hydrogen, trifluoromethyl, trifluoromethoxy, hydroxy, chloro, fluoro, bromo and phenyl.
23. The compound of claim 2, wherein when R⁵ is selected from: hydrogen, trifluoromethyl, trifluoromethoxy, hydroxy, chloro, fluoro, bromo and phenyl.
- 25 24. The compound of claim 2, wherein R⁷ is selected from phenyl, heterocycle, C₃₋₇cycloalkyl, C₁₋₆alkyl, -COR¹¹ and -CONH-V-COR¹¹, where V is C₁₋₆alkyl or phenyl, and where said phenyl, heterocycle, C₃₋₇cycloalkyl and C₁₋₆alkyl are unsubstituted or substituted with 1-5 substituents independently selected from: halo, trifluoromethyl, hydroxy, C₁₋₃alkyl, -O-C₁₋₃alkyl, -COR¹¹, -CN, -heterocycle and -CONR¹²R¹².
- 30

25. The compound of claim 2, wherein R^7 is selected from phenyl, heterocycle, C_{1-4} alkyl, $-COR^{11}$ and $-CONH-V-COR^{11}$, where V is C_{1-6} alkyl or phenyl, and where said phenyl, heterocycle, and C_{1-4} alkyl are unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, C_{1-3} alkyl, $-O-C_{1-3}$ alkyl, $-COR^{11}$ and $-heterocycle$.

5

26. The compound of claim 2, wherein R^7 is selected from: hydrogen, $-COR^{11}$, $-CONHCH_3$, phenyl and heterocycle.

27. The compound of claim 2, wherein when X is C, R^8 is selected from: hydrogen, hydroxy, $-CN$, and fluoro.

10

28. The compound of claim 2, wherein R^7 and R^8 join to form a ring selected from 1H-indene and 2,3-dihydro-1H-indene, where said ring is unsubstituted or substituted with 1-3 substituents independently selected from: halo, hydroxy, C_{1-3} alkyl, $-O-C_{1-3}$ alkyl, $-COR^{11}$ and $-heterocycle$.

15

29. The compound of claim 2, wherein R^9 and R^{10} are independently selected from: hydrogen, hydroxy, $-CH_3$, $-O-CH_3$ and $=O$.

In certain embodiments of the present invention R^{16} is selected from: hydrogen, $-O-C_{1-3}$ alkyl, fluoro, hydroxyl, and C_{1-3} alkyl unsubstituted or substituted with 1-6 fluoro.

20

30. The compound of claim 1, wherein R^{16} is selected from: hydrogen, trifluoromethyl, methyl, methoxy, ethoxy, ethyl, fluoro and hydroxy.

25 31. The compound of claim 1, wherein R^{18} is selected from: hydrogen, methyl and methoxy.

32. The compound of claim 1, wherein R^{16} and R^{18} together are $-CH_2CH_2-$ or $-CH_2CH_2CH_2-$.

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33. The compound of claim 1, wherein R^{26} is =O.

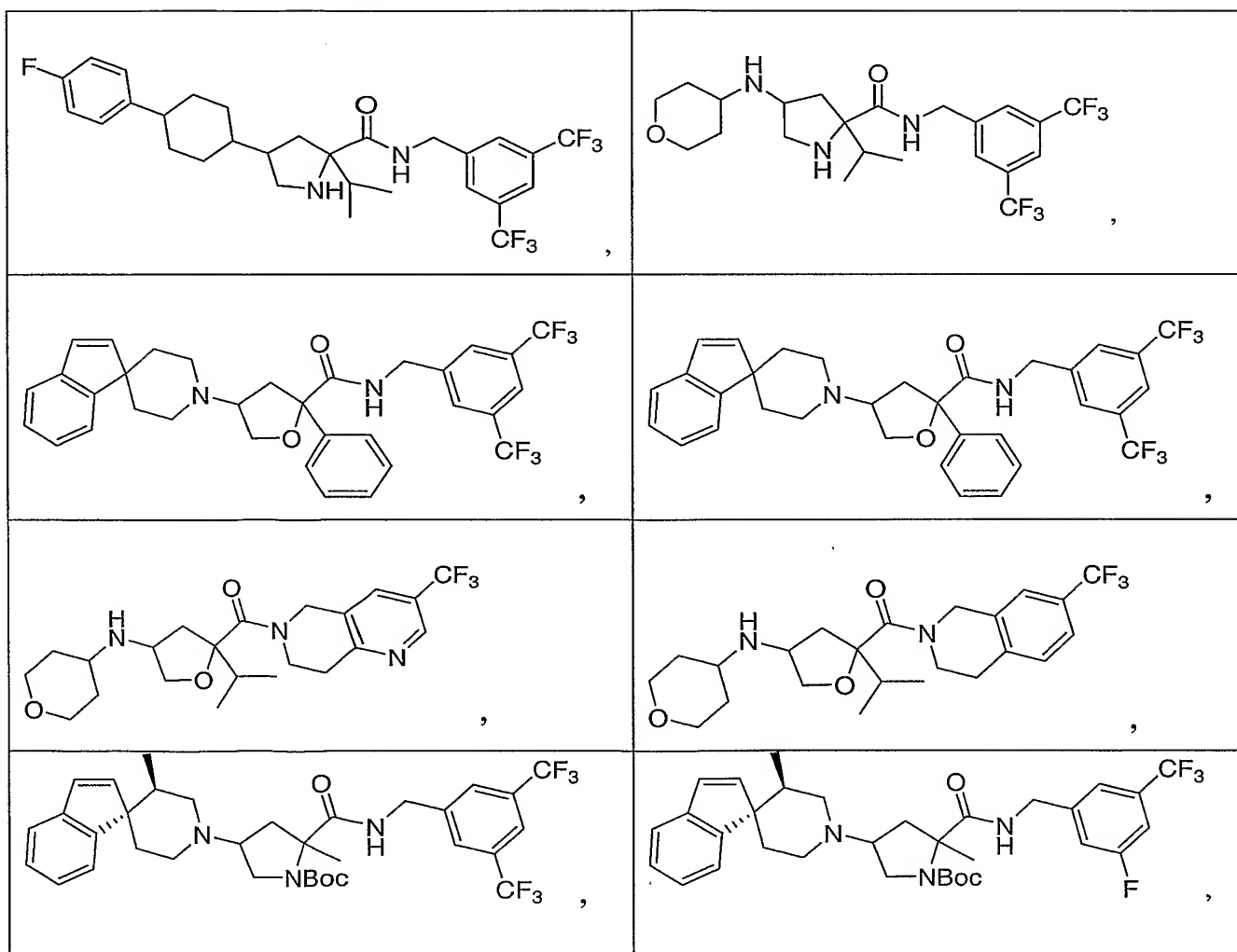
34. The compound of claim 1, wherein R^{26} is =O.

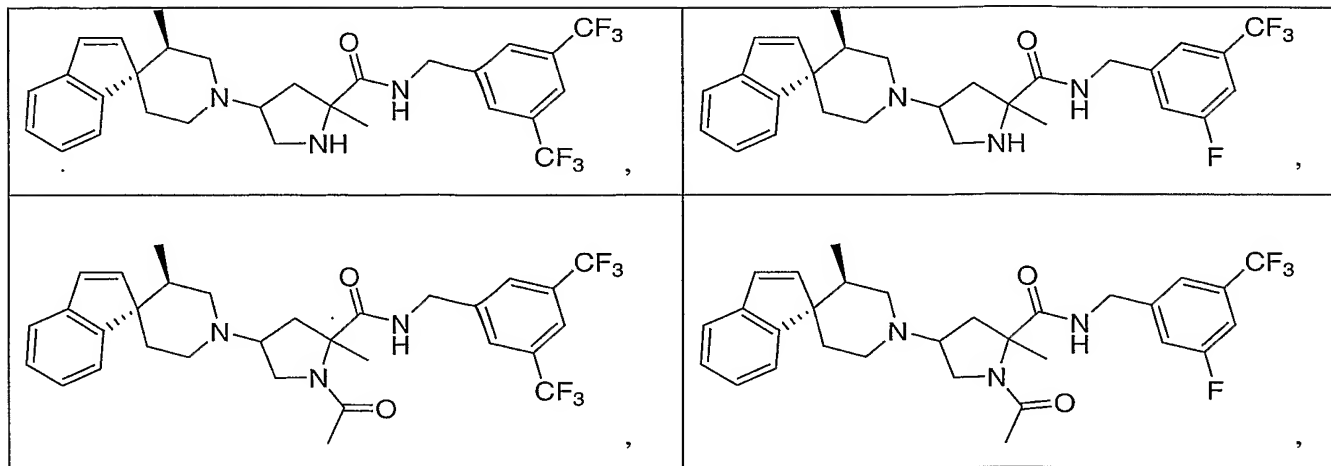
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35. The compound of claim 2, wherein m is 0 or 1.

36. The compound of claim 2, wherein n is 1 or 2.

37. A compound selected from:





and pharmaceutically acceptable salts thereof and individual diastereomers thereof.

38. A pharmaceutical composition which comprises an inert carrier and a compound
5 of Claim 1.

39. A method for modulations of chemokine receptor activity in a mammal which
comprises the administration of an effective amount of a compound of Claim 1.

40. A method for treating, ameliorating, controlling or reducing the risk of an
10 inflammatory and immunoregulatory disorder or disease which comprises the administration to a patient
of an effective amount of a compound of Claim 1.

41. A method for treating, ameliorating, controlling or reducing the risk of
15 rheumatoid arthritis which comprises the administration to a patient of an effective amount of a
compound of Claim 1.

42. A pharmaceutical composition which comprises an inert carrier and a compound
of Claim 2.

43. A method for modulations of chemokine receptor activity in a mammal which
20 comprises the administration of an effective amount of a compound of Claim 2.

44. A method for treating, ameliorating, controlling or reducing the risk of an inflammatory and immunoregulatory disorder or disease which comprises the administration to a patient of an effective amount of a compound of Claim 2.

5 45. A method for treating, ameliorating, controlling or reducing the risk of rheumatoid arthritis which comprises the administration to a patient of an effective amount of a compound of Claim 2.